What is claimed is:

1. A repeatedly engageable and disengageable friction clutch comprising:

a housing rotatable about a predetermined axis;

a pressure plate non-rotatably connected to said housing and axially movable relative thereto in a first direction to engage the clutch and in a second direction to disengage the clutch; and

a diaphragm spring tiltably disposed within said housing in elastically deformed condition and before the clutch is installed.

2. A clutch in accordance with claim 1, wherein said diaphragm spring is maintained in said elastically deformed condition before the clutch is put to use in a power train of a motor vehicle.

3. A clutch in accordance with claim 1, wherein said diaphragm spring is mounted on said pressure plate in said elastically deformed condition.

4. A clutch in accordance with claim 1, wherein said pressure plate includes a ring-shaped supporting portion for supporting said diaphragm spring and for supporting tensioning means that is radially offset relative to said supporting portion and is arranged to maintain said diaphragm spring on said pressure plate in a resiliently stressed condition.

5. A clutch in accordance with claim 4, wherein said tensioning means is fixed against movement relative to said pressure plate as seen in the direction of said axis.

6. A clutch in accordance with claim 4, wherein said tensioning means includes an annular array of elements that are rigid with said pressure plate and extend in at least substantial parallelism with said axis through openings provided in said diaphragm spring, said diaphragm spring having a side facing away from said pressure plate, and said elements supportingly engaging said diaphragm spring at said side thereof.

7. A clutch in accordance with claim 6, wherein said elements of said tensioning means are riveted to said pressure plate and include enlarged portions disposed at said side of said diaphragm spring and being enlarged at least in a circumferential direction of said diaphragm spring to constitute axial supports for portions of said spring.

8. A clutch in accordance with claim 1, wherein said diaphragm spring includes an annular main portion, and tongs extending from said main portion at least substantially radially inwardly toward said axis, at least some of said tongues being arranged to maintain said spring in an elastically stressed condition.

9. A clutch in accordance with claim 1, further comprising a rotary clutch disc having friction linings that are subject to wear in response to repeated engagement

and disengagement of the clutch, said pressure plate being adjacent to and being movable into and out of repeated frictional contact with said friction linings in response to repeated engagement and disengagement of the clutch, and further including compensating means arranged to compensate for wear of said friction linings and disposed between said housing and said diaphragm spring.

10. A clutch in accordance with claim 9, wherein said compensating means includes at least one resilient sensor at least indirectly bearing upon said diaphragm spring in the direction of said axis in the engaged condition of the clutch, and an annular adjusting member interposed between said housing and said diaphragm spring and arranged to shift said diaphragm spring relative to said housing in the direction of said axis and through a distance that is a function of the extent of wear at least of said friction linings.

11. A clutch in accordance with claim 1, further including at least substantially concentric first and second ring-shaped fulcrums respectively provided on said housing and said pressure plate, said diaphragm spring including a first annular portion tiltably engaging said first fulcrum and a second annular portion tiltably engaging said second fulcrum.

12. A clutch in accordance with claim 11, wherein one of said fulcrums is nearer to said axis than the other of said fulcrums.

13. A clutch in accordance with claim 1, wherein said diaphragm spring is installed in said housing in stressed condition so that the clutch is normally engaged, and further comprising means for disengaging the clutch.

14. A clutch in accordance with claim 13, wherein said disengaging means includes means for elastically deforming said diaphragm spring.

15. A clutch in accordance with claim 1, further including a rotary counterpressure plate coaxial with said pressure plate, a clutch disc interposed between said plates and having first and second friction linings respectively adjacent said pressure plate and said counterpressure plate, and a resilient back support between said first and second friction linings.

16. A clutch in accordance with claim 15, wherein said back support is arranged to oppose movement of said first friction lining toward said second friction lining in response to movement of said pressure plate toward said counterpressure plate under the bias of said diaphragm spring during engagement of the clutch, and further including at least one resilient sensor arranged to oppose said movement of said first friction lining.

17. A clutch in accordance with claim 16, wherein said diaphragm spring has a set of resilient tongues and said at least one sensor is arranged to bias said tongues axially of the clutch in a first direction, and further including means for engaging the

clutch including means for urging said tongues in a second direction counter to said first direction.

18. A clutch in accordance with claim 15, wherein said resilient back support has a characteristic curve and further including at least one resilient sensor arranged to detect the extent of wear of said friction linings in response to repeated engagement of the clutch that involves tilting of said diaphragm spring relative to said pressure plate with attendant stressing of said diaphragm spring against the opposition of said sensor and said back support.

19. A clutch in accordance with claim 18, wherein said characteristic curve is related to the condition of said at least one sensor in such away that the force that is required to deform said diaphragm spring during engagement of the clutch exceeds an axial force furnished by said back support and said at least one sensor.

20. A clutch in accordance with claim 19, further including stressed leaf springs interposed between said housing and said pressure plate and arranged to assist said axial force, said leaf springs being arranged to transmit torque between said housing and said pressure plate.